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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,336	02/12/2002	Naoya Yamazaki	FUJX 19.423	5703

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EXAMINER

CHERVINSKY, BORIS LEO

ART UNIT PAPER NUMBER

2835

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/074,336

Applicant(s)

YAMAZAKI ET AL.

Examiner

Boris L. Chervinsky

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06/25/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 9, 38 objected to because of the following informalities: misspelling in line 4 and 6 respectively. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4, 7, 10, 13-19, 22, 25, 28, 31-34, 37, 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation in the claims 1, 37, 40 that the spacing on one or both of the wall and the plate-like structure cannot structurally define the claimed element, therefore the claims depending on claims 1, 37 are also vague and indefinite.

Claims 13-15 are vague and indefinite because claimed elements are not clearly defined in the specification or in the drawings (the top parts) and, as best understood, do not structurally limiting preceding claims.

Claims 16-18 are vague and indefinite because the term "partly contracted" has not been clearly defined in the specification.

The functional recitation in claims 31-33 that the heat medium steadily recirculates in the part of the channel is indefinite because it is not supported by recitation in the claim of sufficient structure to accomplish the function.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-21, 31-36, 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh.

Itoh discloses the thermal diffuser 20 bonded to the electronic component 1, the diffuser 20 has a plate-like structure with a wall 22 on its fringe, a plurality of protrusions 25, 23, are arranged on the inner walls, the protrusions 25 closely arranged with uniform density and forming web-like structure, the protrusions 31 and 32 are arranged on the inner side and outer side of the plate-like structure, the heat medium is confined inside the plate-like structure and being recirculated by capillary attraction.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh. Itoh discloses the claimed invention except the heat medium injection path. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the injection path, as shown in the prior art references listed in US

PTO 892 Form, since such injection path is inherently required for injecting the heating fluid in the enclosed cavity.

7. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh in view of Xie.

Itoh discloses the claimed invention except the medium inserted in the channels to promote capillary attraction. Xie discloses the thermal diffuser including channels 212 being filled with the medium for capillary attraction (col. 3, lines 65-67). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to insert medium for promoting capillary attraction as disclosed by Xie in the structure disclosed by Itoh for optimal heat absorption.

8. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh in view of Vismanath.

Itoh discloses the claimed invention except the holes and fastening members to couple the diffuser and the case. Vismanath discloses the fastening arrangement for the thermal diffuser including the holes and fastening member. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the arrangement disclosed by Vismanath in the structure disclosed by Itoh for coupling the thermal diffuser with the casing.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris L. Chervinsky whose telephone number is 703-308-5429. The examiner can normally be reached on 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 703-308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-5115.

**BORIS CHERVINSKY**  
**PRIMARY EXAMINER**

A handwritten signature in cursive script, appearing to read "Boris Chervinsky", written in black ink.

July 15, 2003